condition gathered strength. Opponents and friends of the Department of Science and Art approached the scandal from different points of view; and in 1896 a Select Committee of the House of Commons was appointed. No witness before a Select Committee has, it is believed, ever been subjected to such a prolonged course of petty ignorant spite and vexatiousness as Sir John Donnelly was. For months he had to undergo an almost daily crossfire of idle questions. However, the main upshot of the Committee's reports was a vote by Parliament of the handsome sum of 800,000*l.* to complete the permanent science and art buildings at South Kensington, thus securing the very object to obtain which Donnelly had laboured so hard. So far as concerned the relatively unimportant malicious statements and inaccuracies which were aimed at Sir John Donnelly in passages of the Committee's reports, the Lord President and Vice-President of the Council on Education issued a minute animadverting upon them and emphasising the fact that their lordships alone were responsible for the administration of the museums; their directions had been loyally carried out by the staff and they retained the fullest confidence in Sir John Donnelly and his colleagues. There can be little doubt now that the irritation to which the Select Committee's persistent attacks put Sir John told upon his health.

Sensitive and reserved, he had an almost over-exacting sense of rectitude. He did not court society—in the conventional sense—but preferred the exclusiveness of his own circle of friends, which included many men prominent in science and art. During his yearly holidays, chiefly spent in the quiet retirement of his house amongst the pine-woods at Felday, Surrey, he frequently sketched, and season after season one or two of his painstaking etchings and water-colour paintings were to be seen at either the Royal Academy or the New Gallery.

NOTES.

IT is too early to estimate fully the effect of the magnificent endowments provided for by the will of Mr. Cecil Rhodes, but we are all able to admire the noble conception which aims at promoting a good understanding between England, Germany and the United States. It would be difficult to suggest a better means of accomplishing this than that outlined by Mr. Rhodes. Students from our colonies, the United States and Germany are to be encouraged to spend three years in the University of Oxford, where they will become familiar with our national characteristics. Nothing but good can come from the friendships which will thus be founded; and there will be a strong influence tending to bring the three nations into close relationship with one another, which will enable political and commercial questions to be discussed without the distrust usually connected with them. Rarely have endowments been made with so lofty an object; and with such an example we look hopefully to the future for other ties to bind nations together. For the present, a brief statement of the provisions of the will as regards education will be sufficient to show the scheme by which this unity of race is to be furthered. Sixty scholarships of 300*l.* a year each are to be founded for colonial students. The scholarships will be tenable at any Oxford college for three consecutive years, and twenty are to be awarded every year, this number being distributed among the various portions of the British Empire. Two scholarships of the same value are allocated to each of the fifty States and Territories of the United States of America. Moreover, in recognition of the encouragement now given in German schools to the study of English, fifteen scholarships of the value of 250*l.* a year, tenable at Oxford by German students for three years, are to be established. The will thus provides for scholarships amounting to nearly 52,000*l.* per annum, which means a capital sum of from one and a half to two millions. Some of the scholarships would have been made tenable at Edinburgh if the University there had been on a residential system; for Mr. Rhodes mentioned in his will that fifty or more students from South Africa were studying there, many of them attracted by the excellent medical school, but the want of a residential system made him refrain from establishing any scholarships in connection with the University. Oxford, like Cambridge, has such a system, and the will suggests that "it should try to extend its scope so as if possible to make its medical school at least as good as that at the University of Edinburgh." The world will now look to Oxford to increase the value of its medical school, and we shall wait with interest to see what developments are made. Mr. Rhodes's old college at Oxford, Oriel College, receives 100,000*l.*, of which 40,000*l.* is for the erection of new buildings, as a fund to cover the loss to College revenue involved in the removal of houses to make room for them; 40,000*l.* to endow an increase of income of resident fellows working "for the honour and dignity of the College"; 10,000*l.* to increase the comforts of the High Table, and the remaining 10,000*l.* is to be a fund for providing for the maintenance and repair of the College buildings. A sum yielding 2000*l.* a year is set apart for the cultivation of Mr. Rhodes's property at Inyanga, and he directs in particular that irrigation should be the first object kept in view. Other objects to be borne in mind are experimental farming, forestry, market and other gardening, fruit farming, and the teaching of any of those things, and the establishment and maintenance of an agricultural college. Mr. Rhodes's gifts are both bounteous in amount and grand in intention; and they reveal a greatness of character not often found.

MR. GEORGE WILSON, whose death was announced in our last issue, was one of those who early appreciated the immense importance of applying science to manufacturing industries. The results in his case were seen in the excellence of his products and in the importance of the incidental substances which were brought to light in the course of the manufacture. In his days the importance of scientific method and its superiority to rule of thumb were not so much insisted on as they are now. Mr. Wilson was not only a chemist, but an enthusiastic horticulturist, adopting gardening at first as a recreation, and of late years making it the occupation of his life. Although he published nothing but ephemeral notes on his favourite pursuit, he constantly insisted on the necessity of applying scientific principles to practical horticulture. In a very interesting little book entitled "The Old Days of Price's Patent Candle Company," in which the history of the manufactures which resulted in such vast improvements in candle making is detailed, he says: "Laboratory training teaches careful observation and close watching, both useful in gardening, which gives a wide field for experiment. If I read the future aright ten years hence good fruit will be much more general than it is now, and for one beautiful hardy plant now common in our gardens we shall have ten." This forecast was written in 1876, and it has certainly been fulfilled, if not quite in the way that Mr. Wilson had in his mind.

FOUR zoological lectures will be delivered in the meeting-room of the Zoological Society after the general meetings on April 17, May 22, June 19 and July 17. The subjects and lecturers are:—"Flying Reptiles," by Prof. H. G. Seeley, F.R.S.; "Horses and Zebras," by Prof. J. Cossar Ewart, F.R.S.; "The Okapi," by Prof. E. Ray Lankester, F.R.S.; and "Elephants," by Mr. F. E. Beddard, F.R.S.

Arrangements have now been made for the Nature-Study Exhibition to be held at the Gardens of the Royal Botanic Society, Regent's Park, on July 23 and following days. It will be open to colleges and schools of every grade, and the exhibits will include all that bears upon nature study. Various technical instruction committees and other educational authorities have already arranged to defray the cost of the conveyance of exhibits from their respective areas, and preliminary exhibitions for the purpose of selecting the best material to send are being organised in several districts. Full particulars may be obtained on application in writing to the hon. secretary, Nature-Study Exhibition, Royal Botanic Gardens, Regent's Park, London, N.W.

The annual general meeting of the Iron and Steel Institute will be held on May 7 and 8. At the opening meeting the Bessemer gold medal for 1902 will be presented to his Excellency F. A. Krupp, of Essen. Among the subjects to be brought before the meeting are :—The nomenclature of metallography ; the microstructure of hardened steel ; gas from wood for use in the manufacture of steel ; the physical and chemical properties of carbon in the hearth of the blast-furnace ; the sulphur contents of slags and other metallurgical products ; and Brinell's researches on the influence of chemical composition on the soundness of steel ingots.

Sir Samuel Wilks, Bart., F.R.S., has been elected president of the Hampstead Scientific Society in succession to the late Sir Richard Temple.

The *Times* announces the death, at Munich, of the well-known bacteriologist Prof. Hans Büchner, in the fifty-second year of his age. Prof. Büchner, who was president of the Hygienic Institute at Munich, rendered important services to science in developing the modern theory of infectious diseases. From the same source we learn of the death, at the age of eighty-seven, of M. Emile-Jean Renou, founder, in 1873, of the Saint Maur Meteorological Observatory. In 1840 he was commissioned by the Government to explore Algeria, Morocco and Tripoli, and he drew up the first geological map of Algeria.

The *Chemical News* announces that the Fifth International Congress of Applied Chemistry will be held at Berlin during the Whitsuntide holidays in 1903, under the presidency of Dr. Clemens Winkler. The House of the Imperial Parliament (Reichstag) has been placed at the disposal of the Congress, and Geheimrath Prof. Otto N. Witt has been nominated president of the organising committee, Dr. Bottinger, member of the German Parliament, acting as treasurer. A fund of about 3000*l*. has already been collected by voluntary subscriptions from societies and private individuals towards the expenses of the Congress.

We learn from *Science* that at the February meeting of the council of the American Institute of Electrical Engineers a resolution, brought forward by the committee on standardisation, in favour of the metric system was unanimously adopted. The committee's report and resolution were as follows :—(1) The metric system of weights and measures offers very great advantages by its simplicity, consistency and convenience in every-day use, as well as in all engineering calculations and computations. (2) These advantages have already been demonstrated by the universal adoption and entirely successful use of the metric system in all civilised countries except Great Britain and the United States. (3) All the electrical units in universal use, such as the volt, ampere, ohm, watt, &c., are metric units. (4) The industrial use of these electrical units would be much facilitated by the general adoption of the metric system. (5) This committee unanimously recommends the introduction of the metric system into general use in the United States at as early a date as possible without undue hardship to the industrial interests involved. (6) The committee favours such legislation by Congress as shall secure the adoption of the metric system by each department of the National Government as speedily as may be consistent with the public welfare.

In a note contributed to the *Atti dei Lincei*, xi. 4, Signor C. Somigliana shows that Lord Kelvin's method of images can be applied to the solution of the equations of elasticity, under certain conditions, for solids with plane boundaries.

The Vienna *Sitzungsberichte* contains a note by Dr. Josef von Geitler on some experiments conducted for the purpose of proving the action of kathode rays on a magnetic needle. It now appears that a source of error has been discovered in the heating of the brass tubes employed, where the rays fall on them, and the consequent production of thermoelectric currents. Unfortunately, the direction of these currents is such as to deviate the magnet in the *same* direction as it would be deviated by the rays themselves. It appears only possible by means of quantitative measurements to ascertain whether any portion of the observed effect exists over and above what is directly attributable to the source of error in question.

The "red rain" which fell in many parts of Italy and extended as far as Vienna and other central European stations on the evening of March 10, 1901, has been subsequently studied by Prof. N. Passerini, and an account of the phenomena is now given by him in the *Bolletino mensuale* of the Italian Meteorological Society. The phenomenon appears to have travelled slowly from south to north, occurring at Palermo in the night of March 9-10 and at Florence in the night of March 10-11. Prof. Passerini found that the precipitation of the earthy substance was accompanied with very little rain, and a rough analysis showed it to contain about 44 per cent. of fine sand, 32 per cent. of argillaceous matter, 12 per cent. of calcareous matter and about 10 per cent. of organic and volatile substances destroyed by calcination. The red colour was probably due to ferric hydrate. In the samples found in Pisa and elsewhere, fragments of Diatomaceæ, as well as spores, are said to have been observed. It is suggested that the material deposited in this and other so-called "rains of blood" that have occurred at different times in Italy may probably have been transported by a cyclonic disturbance, and may have had its origin in the equatorial regions of Africa or America.

The "Results of Rain, River and Evaporation Observations" made in New South Wales during 1899 have been published by Mr. H. C. Russell, Government Astronomer, and contain, as usual, valuable observations for each month and tables showing the records for various stations since 1840. The number of observing stations has risen to 1724, the observers being mostly volunteers. The year 1899 is the fifth dry year in succession, the shortage of rain for the whole colony being 21 per cent., but in a large area west of the Darling the rainfall was from 16 to 67 per cent. below the average. Six good years, 1889 to 1894, had an average of 28·61 inches of rain, and five bad ones, 1895 to 1899 inclusive, had an average of 20·49 inches. Mr. Russell remarks that only the richness of the soil and the climate save the stock under such droughts, for even a shower will often give a good growth of grass and be in time to save the stock. The crops in 1899 were to a large extent saved, except in the western districts, by the rains which fell between June and October.

The Meteorological Service of Manila, which, under the superintendence of the Observatory at that place, has for many years published valuable annual summaries, has been reorganised on the lines of the United States Weather Bureau. From the beginning of the year 1901, the new Philippine Weather Bureau has issued monthly bulletins, containing data deduced from hourly observations, with a chronicle of the weather in English and Spanish. The bulletin also includes accounts of unusual occurrences and notes on the crops obtained from stations established throughout the Archipelago. Among the occurrences is an account of the earthquake of December 15 last. This was the strongest shock experienced since 1880, and was felt over an area almost as large as Spain. It lasted for a minute and a half, but, owing especially to the slowness of the motions, the damage caused was not great.

THE *Annuaire Météorologique* for the present year, published by the Belgian Royal Observatory, under the direction of M. A. Lancaster, has been received. The annual is full of interest, and contains many useful facts and much accurate information on meteorological matters in general. Thus, after a short summary of the more important astronomical ephemerides, we find a meteorological calendar and the second portion of the history of meteorology in Belgium, covering the period from the foundation of the Brussels Academy of Science to the first publications of the Royal Observatory. M. Lancaster brings together all the facts relating to the temperature, rainfall and wind pressure at Brussels from the year 1833 to 1900, and prints, not only the monthly means or totals, as the case may be, but the mean value for each season and for the whole year. M. Vanderlinden writes a most interesting essay on the meteorological conditions of the upper atmosphere, and describes the various means that have been and are now adopted for exploring great heights meteorologically. A number of miscellaneous tables and data follow this article, and the annual concludes with an account of the movements of the atmosphere from cloud observations made at Brussels, a *résumé* of the meteorological observations made at Uccle, near Brussels, during the year 1901, and, lastly, a description of the climate of Belgium for the year 1900.

AN illustrated account of Mr. Wilbur Wright's aëronautical experiments with gliding machines is given in the *Scientific American* for February 22. These experiments differ from those of Messrs. Lilienthal, Pilcher and Chanute in two important features, (1) the horizontal position of the operator when gliding, which is calculated to save about half a horse-power by the diminution of air-resistance, and (2) the use of a front rudder instead of one at the back of the machine. In describing one of these experiments, made with a machine of 308 square feet in a wind blowing thirteen miles an hour, the *Scientific American* states:—The machine sailed off and made an undulating flight of a little more than 300 feet. To the onlookers this flight seemed very successful, but to the operator it was known that the full power of the rudder had been required to keep the machine from either running into the ground or rising so high as to lose all headway. The experiments also showed that one of the greatest dangers in machines with horizontal tails had been overcome by the use of a front rudder, and the operators escaped from positions which had proved very dangerous to preceding experimenters. In subsequent experiments the machine with its new curvature never failed to respond promptly to even small movements of the rudder. Many glides were made whenever the conditions were favourable.

THE Report of the Felsted School Scientific Society for 1900-1 contains an interesting account, by Mr. A. A. G. Dobson, of an expedition down the Bermejo River, organised by the Messrs. Leach, the well-known sugar- and coffee-planters of the Tucuman district of Argentina.

THE most important paper in the portion of the *Proceedings* of the Philadelphia Academy for 1901, which we have just received, is one by Miss C. B. Thompson on a new nemertean worm (*Zyguepolia littoralis*) recently discovered in Massachusetts. The account, which is illustrated by five plates, occupies eighty pages.

WE have received the second (April) number of a new monthly illustrated journal, *The Country*, published by J. M. Dent and Co. and edited by Mr. H. Roberts. In addition to ordinary subjects connected with the country, inclusive of sporting, farming and gardening, this number has three articles on natural history. One of these deals with wild life in Britain, as exemplified by the black-headed gull, the second treats of the songs of birds, from the point of view of systematic classification of the species, while the third describes bird-haunts. All three are well and pleasantly written, and the first and third are attractively illustrated.

MESSRS. BLACKWOOD have sent us a copy of the first number of a new journal, the *Field Naturalist's Quarterly*, edited by Dr. G. Leighton. The part, which is illustrated with a couple of excellent full-page photographic reproductions, opens with an account of certain uncommon British sea-fishes, by Mr. F. G. Aflalo, and contains thirteen other articles, four of which deal with animals and nature in winter. That the editor does not intend to confine his purview to British subjects is indicated by an anonymous article on the fauna of New Zealand; while the wide range proposed to be embraced is made evident by one on telegony in dogs, by Prof. Ewart. The appearance of this new journal may be taken as an earnest of the reviving interest in field natural history.

WE have received parts i. and ii. of vol. lxxi. of the *Zeitschrift für wissenschaft. Zoologie.* The former is entirely devoted to an elaborate memoir on the development of the kidneys in the amniote vertebrates, by Herr K. E. Schreiner, of the Anatomical Institute of the University of Prague. Important conclusions are drawn as to the relationship of the permanent to the primitive kidneys. Among the contents of the second part is a paper on the development of the Anatidæ, as represented by the domesticated duck, by Prof. P. Mitrophanow; while another, by Herr E. Botezat, deals with the nerves in the epithelium of the tongue of mammals. In a third communication, Herr F. Urban describes a new genus and species (*Rhabdodermella nuttingi*) of calcareous sponge from Monterey Bay, California.

THE issue of an annual report by the president of the Philadelphia Academy of Sciences, which has been in abeyance since 1881, has been resumed for the past year. In this Report Mr. S. G. Dixon gives a satisfactory account of the position and prospects of the Academy, the financial resources of which were largely increased in 1900. As in most institutions of a kindred nature, the attendance at the weekly meetings has, however, sensibly decreased owing to the increasing specialisation of natural history. An enormous increase has taken place of late years in the zoological collections of the Academy, the molluscan department having since 1887, when it was regarded as the leading collection in the world, received no less than 30,000 "lots."

IN the *Quarterly Journal of Microscopical Science* for March, Mr. E. S. Goodrich publishes the first part of a paper on the structure and homology of the renal organs of Amphioxus, or, as it should properly be called, Branchiostoma. The announcement of the author's important discovery as to the identity of these organs in their segmental arrangement, function and histological structure with the nephridea (renal organs) of polychætous worms like Phyllodoce has been already made in a preliminary paper, and the evidence is now submitted to the scientific world in fuller detail, accompanied by excellent illustrations. Bearing in mind that in both cases the renal organs are furnished with so-called "solenocytes," there seems, as the author remarks, a strong probability that they are homologous. With characteristic caution, he prefers, however, to await an investigation into their developmental history before definitely stating that this is the case. Even the provisional identification of true nephridea in the vertebrate phylum is a most important advance in our knowledge. If this be confirmed by future investigation, it is not a necessary sequence that vertebrates are derived from the polychætous worms, all that is demonstrated being that the remote common ancestor of these now widely divergent branches was of a much more specialised type than has been commonly supposed.

The authorities at the Royal Botanic Gardens have just published, as an appendix to the *Kew Bulletin*, a list of new garden plants which have been recorded during the past year. Only a few are actually in cultivation at Kew, but of these some will be available for distribution in the regular course of exchange. In the case of the remainder, reference is given, where possible, to the individual in whose garden or collection the plant was first brought to notice. One of the objects in publishing this list is to endeavour to ensure a uniform and correct naming of new plants.

Mr. J. H. Maiden, in an extract from the *Agricultural Gazette* of New South Wales, directs attention to the practice adopted by the Australian aborigines of obtaining water from the roots of various plants in arid districts. The trees tapped for this purpose were species of Eucalyptus known as Mallee, and Hakea or Needlebush. Also some Casuarinas were known by the natives to store up water in their stems. The usual method of treating the roots was to cut them up into pieces about nine inches long; these might receive a preliminary chew, or without being subjected to that stimulus would be set on end in order to pour out their stock of water.

The coal resources of India formed the subject of a paper lately read by Prof. W. R. Dunstan before the Society of Arts (*Journal*, March 21). He points out that India possesses a practically inexhaustible supply of coal, mainly of permo-Triassic age, and occupying an area estimated at about 35,000 square miles. The industry of coal-mining is at present in its infancy. During the year 1900 a little more than six million tons were produced, mainly from Bengal. The principal coalfields in that province are estimated to contain 136 million tons of coal. Excellent steam and coking coal occur in Bengal and also in Assam.

A sketch of the geology of the north-east coast of Labrador has been contributed by Mr. Reginald A. Daly (*Bull.* Mus. Comp. Zoology, Harvard Coll., vol. xxxviii., 1902). The foundation rocks of this coast consist mainly of a crystalline complex of schists and gneisses with intruded masses and dykes of granite, diorite and gabbro, with also slates and sandstones perhaps of Cambrian age. The general strike of the rocks, whether of cleavage or stratification, coincides with the trend of the coast; and in discussing this subject the author throws out the suggestion that the great Bank of Newfoundland may be a submerged mountain-plateau at the intersection of the Labrador and Appalachian structural axes. Attention was, however, mainly given to the glacial phenomena, to the general direction of ice-movements, the "lunoid furrows" described by Packard, and the post-Glacial movements as proved by raised beaches. The ice-movement at all elevations, both in the valleys and on the hill-tops, was found to have been outward from the central part of the peninsula. The "lunoid furrows" are crescent-shaped depressions five to fourteen inches broad by three to nine inches long, and about an inch deep vertically in the rock. Mr. Daly considers that they originate from the tension or shearing stress set up in the bed-rock by boulders dragged along beneath the ice, and that the actual hollows are due to the action of frost in post-Glacial times prizing up the fragments of disturbed rock. The limit of glaciation was about 2100 feet above the sea, so that the higher massifs formed nunataks overlooking the Pleistocene ice-sheet.

The *Journal* of the Franklin Institute contains a long and elaborate paper on the Alasko-Canadian frontier, by Mr. Thomas Willing Balch. The historical evidence is carefully analysed, and there are reproductions of a number of old maps. The author concludes that the evidence shows overwhelmingly that the United States are entitled to an unbroken strip of land on the continent from Mount St. Elias down to the Portland Channel, and believes that they should never consent to refer the matter to arbitration.

We have received from the author a copy of a pamphlet entitled "A Sketch of the Subject of Map Projections," by Major C. F. Close, R.E. A list of selected projections is given and a short explanation of the formulæ used in constructing each, also a list of examples and books of reference. The paper, which might well be expanded into the much-needed English text-book on the subject, will be extremely useful to anyone dealing with map projections. We note that the references contain no mention of the works of Tissot, Hammer or Zöppritz.

Several popular and instructive articles on scientific topics appear in this month's magazines. The frontispiece in *Pearson's Magazine* is a reproduction of a photograph of the head of a cobra, taken when the snake's head was only a yard away from the camera. Mr. S. S. Buckman describes and illustrates some characters and actions of babies similar to those exhibited by monkeys and suggesting a common origin. Dr. C. Brown gives a number of striking pictures of fossils of various kinds, and indicates the lessons taught by them. Stages in the opening of leaves of several plants are dealt with by Mr. G. Clarke Nuttall, and are pleasingly illustrated. A number of curves drawn with a compound pendulum accompany a description by Mr. A. Williams. In the *Royal Magazine*, Mr. W. M. Webb writes an account of a caterpillar farm at Scarborough, where moths and butterflies are reared as a business. The *Sunday Magazine* has several photo-micrographs of parts of caterpillars; and a number of "minute marvels of nature" are illustrated in *Good Words*, from photo-micrographs by Mr. J. J. Ward.

The American Society for Plant Morphology and Physiology held their annual meeting at Columbia University under the presidency of Dr. Erwin F. Smith, of the Department of Agriculture. The president, besides delivering his address on plant pathology, presented a paper dealing with the destruction of cell walls by bacteria. Leaves of the turnip were inoculated with the bacterium *Pseudomonas campestris*. The disease appeared on the leaves and passed down to the root. Sections of the root showed the bacterial masses in the vessels and adjacent parenchyma. The bacteria grow in between the cells, dissolve first the middle lamella and then the rest of the cell walls, and finally occupy large cavities which have been formed by the destruction of large portions of tissue. Dr. C. O. Townsend described another bacterial disease occurring generally on the bulbs, sometimes on the roots or leaves of the Calla lily. At the same meeting, Dr. Harshberger suggested several lines of research which might be undertaken in the West Indies, and proposed that, owing to the suspicious nature of the Tahitians, a steamer should be fitted up as a research laboratory. Prof. Ganong discussed the teaching of plant physiology to large elementary classes. Dr. Margaret E. Ferguson gave an account of investigations into the condition of germination of Basidiomycetous spores, and Prof. Conway Macmillan described his observations on Pterygophora.

THE new volume of the "Statesman's Year Book," edited by Dr. I. Scott Keltie, with the assistance of Mr. I. P. A. Renwick, has been published by Messrs. Macmillan and Co., Ltd. This annual is now in its thirty-ninth year of publication, and every year brings political and other changes which necessitate the revision of much of the information contained in its pages. So far as it is possible for a volume to reflect the condition of the States of the world, the "Statesman's Year Book" performs that function most creditably. Nothing of importance in political geography is overlooked; and the shifting scenes, figures and activities are faithfully recorded. The volume for 1902 contains much revised material relating to the accession of King Edward VII., the census of Great Britain and of India, the development of our educational system, and colonial changes. The maps and diagrams show the results of recent censuses at home and abroad, existing and projected railways in East Central Africa, the new Indian province, and the projected Central America canals. The contents now occupy 1332 pages, and the volume should not be permitted to exceed this number very largely, or it will lose its handy character. How the editor will prevent the ultimate expansion of matter beyond the present limits of space is a problem to which he will need to give careful consideration.

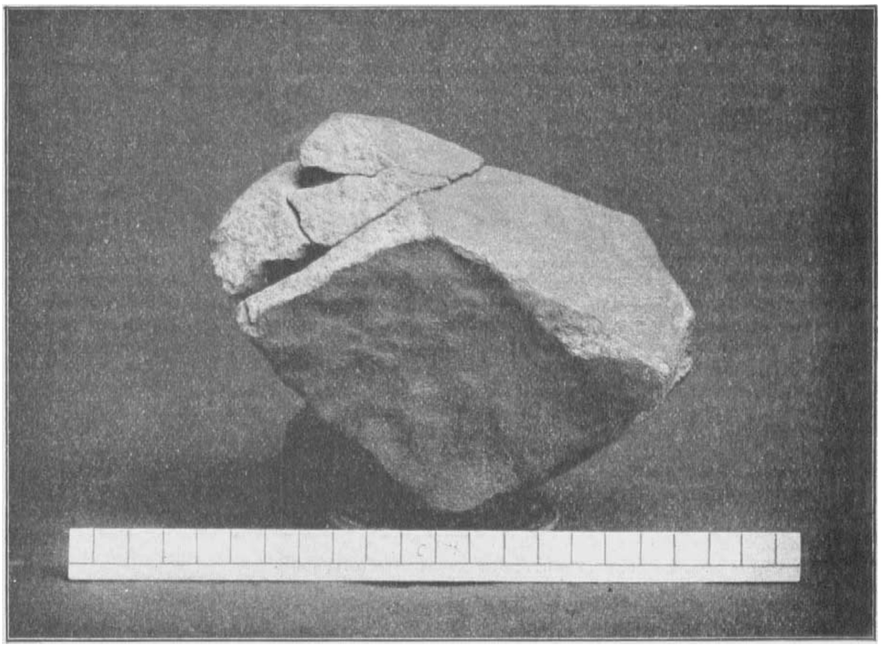
THREE new volumes of Ostwald's series of "Klassiker der exakten Wissenschaften" have been received from Mr. W. Englemann, of Leipzig. (London: Williams and Norgate.) The volume No. 119 (price 2*s*. 6*d*. net) contains two papers on hygrometry, by H. B. de Saussure (1783), edited by Dr. A. J. von Oettingen. The papers deal with the theory of evaporation and the application of the theory to some meteorological phenomena. No. 120 (price 3*s*. net) contains a German translation, with notes by Dr. M. Möbius, of two papers by Malpighi (1675 and 1679) on the anatomy of plants. Fifty figures illustrate the text, and the editorial notes will be of service to German students. Two papers on plant hybrids, by Gregor Mendel (1865 and 1869), edited by Dr. E. Tschermak, form No. 121 of the series. The price of this volume is 1*s*. net.

A NEW edition (the tenth) of Mr. W. T. Lynn's booklet on "Remarkable Comets" has been published by Messrs. Sampson Low, Marston and Co. The only comet expected to return this year is Swift's comet, having a period of 5½ years. This is due towards the end of the year.

THE additions to the Zoological Society's Gardens during the past week include two Black Apes (*Cynopithecus niger*) from the Celebes, presented by Miss A. T. M. Elliot; a Malayan Bear (*Ursus malayanus*) from Malacca, presented by the Marquis of Downshire; a Suricate (*Suricata tetradactyla*) from South Africa, presented by Mrs. Philips; a Golden-naped Amazon (*Chrysotis auripalliata*) from Central America, a Yellow-billed Amazon (*Chrysotis panamensis*) from Panama, seven Elegant Terrapins (*Chrysemys scripta elegans*) from North America, two Wrinkled Terrapins (*Chrysemys scripta rugosa*) from the West Indies, deposited; six Ruffs (*Machetes pugnax*), four Snow Buntings (*Plectrophenax nivalis*) European, eight Undulated Grass Parrakeets (*Melopsittacus undulatus*) from Australia, purchased; an Eland (*Orias canna*) born in the Gardens.

OUR ASTRONOMICAL COLUMN.

THE FELIX METEORITE.—In a recent number of the *Proceedings* of the United States National Museum, Mr. G. P. Merrill gives an account of the fall of a meteoric stone at 11.30 a.m. on May 15, 1900, near Felix, Alabama. A luminous meteor was seen and three loud reports as of explosion were heard. The main mass weighed about 7 lbs. and was found buried six inches deep in soft ground. In aspect of fractured surface the material is like that of the stones of Warrenton and Lancé, but the chondritic character is more pronounced than in the latter and the colour is darker than in the former, owing to the presence of graphitic carbon in appreciable quantity. The essential minerals are, olivine (73 per cent.), augite and enstatite (18 per cent.), with troilite (5 per cent.), nickel-iron (3 per cent.) and graphitic carbon (0.4 per cent.): the micro-structure is tuff-like.



The Felix Meteorite. The scale below the meteorite is divided into centimetres.

ON THE RELATION BETWEEN INTELLIGENCE AND THE SIZE AND SHAPE OF THE HEAD.

THERE is a popular belief that men of great ability have larger heads than the average population; this belief, however, is not based on trustworthy statistics handled in a satisfactory manner.

In a paper read before the Royal Society, January 23, Prof. Pearson gives the results of statistical investigations undertaken with a view to determine whether any head measurements, and if so, which, are correlated with intellectual capacity.

He points out that although the professional classes are more intellectual and have a larger mean head capacity than the handworking classes, this does not lend any support to the current notion; for the former are better developed physically, and the difference is probably only due to difference of nurture. It is necessary to take a homogeneous class in order to investigate the matter.